Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

1.   (currently amended)   A system positioning a digital flat panel x-ray receptor for a variety of diagnostic x-ray protocols, comprising:

at least one x-ray source selectively emitting an x-ray beam;

a digital flat panel x-ray receptor having an imaging face;

an upwardly extending, floor-supported column supporting the receptor for movement to different positions ~~up and down along an upwardly extending axis~~, ~~about the same or a different upwardly extending axis, and about a lateral axis transverse to the axis along which the receptor moves up and down~~ wherein the receptor moves in at least two translational and three rotational motions;

said receptor and at least one x-ray source being mounted on separate supports for movement independent of each other; and

said at least one x-ray source and said receptor being juxtaposed for directing said x-ray beam to said imaging face of the receptor for a variety of diagnostic x-ray protocols~~, including protocols in which the source is above the receptor and protocols for lateral imaging in which the source and receptor are at matching levels~~.

2.   (currently amended)   A system positioning a digital flat panel x-ray receptor for a variety of diagnostic x-ray protocols, comprising:

an x-ray source selectively emitting an x-ray beam;

a digital flat panel x-ray receptor having an imaging face;

a first track supporting, for movement along the first track, a first downwardly extending, telescoping column that in turn supports said source for movement up and down, about a first up-down axis, and about a first lateral axis transverse to said first up-down axis, to thereby position and orient said x-ray beam for a variety of x-ray imaging protocols;

a second track supporting, for movement along the second track, a second, downwardly extending, telescoping column that in turn supports said receptor for movement up and down, about a second up-down axis, and about a second lateral axis transverse to said second up-down axis, to thereby position and orient said imaging face of the receptor to match the position and orientation of said x-ray beam for said variety of x-ray imaging protocols, wherein the receptor moves in at least two translational and three rotational motions;

said variety of x-ray imaging protocols being for standing, sitting and recumbent patients, including protocols in which the source is above the receptor and protocols for lateral imaging in which the source and receptor are at matching levels;

said first and second tracks being spaced from each other to allow movement of said first column along the first track that is independent of movement of the second column along the second track.

3.   (currently amended)   A system positioning a digital flat panel x-ray receptor for a variety of diagnostic x-ray protocols, comprising:

an x-ray source selectively emitting an x-ray beam and positioning said beam at positions and orientations for a variety of x-ray imaging protocols, and a supporting structure for said x-ray

source;

a digital flat panel x-ray receptor having an imaging face;

a track supporting, for movement along the track, a downwardly extending, telescoping column that in turn supports said receptor for movement ~~up and down, about an up-down axis, and about a lateral axis~~ ~~transverse to said up-down axis,~~ to ~~thereby~~ position and orient said imaging face of the receptor to match the position and orientation of said x-ray beam for said variety of x-ray imaging protocols, wherein the receptor moves in at least two translational and three rotational motions;

~~said variety of x-ray imaging protocols being for standing,~~ ~~sitting and recumbent patients, including protocols in which the source~~ ~~is above the receptor and protocols for lateral imaging in which the~~ ~~source and receptor are at matching levels;~~

said track being spaced from said supporting structure for the x-ray source to allow movement of said column along the track that is independent of movement of the x-ray source or the support thereof.

4.   (previously presented) A system as in claim 1, wherein the receptor has at least five degrees of freedom relative to the column.

5.   (previously presented) A system as in claim 1, further including motorized drivers for moving the receptor.

6.   (previously presented) A system as in claim 1, further including encoders coupled with the column to provide digital information regarding movement thereof, and a computer coupled with the encoders to receive digital information therefrom and programmed to

utilize the information to control said movement.

7. (currently amended) A system ~~as in claim 1~~ positioning a
digital flat panel x-ray receptor for a variety of diagnostic x-ray
protocols, comprising:

at least one x-ray source selectively emitting an x-ray beam;

a digital flat panel x-ray receptor having an imaging face;

an upwardly extending, floor-supported column supporting the
receptor for movement to different positions, wherein the receptor
moves in at least two translational and three rotational motions,
including up and down along an upwardly extending axis, about the same
or a different upwardly extending axis, and about a lateral axis
transverse to the axis along which the receptor moves up and down;

said receptor and at least one x-ray source being mounted on
separate supports for movement independent of each other; and

said at least one x-ray source and said receptor being juxtaposed
for directing said x-ray beam to said imaging face of the receptor for
a variety of diagnostic x-ray protocols.

8. (previously presented) A system as in claim 7, further
including motorized drivers for moving the receptor.

9. (previously presented) A system as in claim 7, further
including encoders coupled with the column to provide digital
information regarding movement thereof, and a computer coupled with the
encoders to receive digital information therefrom and programmed to
utilize the information to control said movement.

10.   (currently amended)   A system positioning a digital flat panel x-ray receptor for a variety of diagnostic x-ray protocols, comprising:

an x-ray source selectively emitting an x-ray beam;

a digital flat panel x-ray receptor having an imaging face;

a first track supporting, for movement along the first track, a first downwardly extending, telescoping column that in turn supports said source for movement up and down, about a first up-down axis, and about a first lateral axis transverse to said first up-down axis, to thereby position and orient said x-ray beam for a variety of x-ray imaging protocols;

a second track supporting, for movement along the second track, a second, downwardly extending, telescoping column that in turn supports said receptor for movement ~~up and down, about a second up-down axis, and about a second lateral axis transverse to said second up-down axis,~~ to ~~thereby~~ position and orient said imaging face of the receptor to match the position and orientation of said x-ray beam for said variety of x-ray imaging protocols,

wherein the receptor moves in at least two translational and three rotational motions, <u>including up and down, about a second up-down axis, and about a second lateral axis transverse to said second up-down axis</u>.

11.   (previously presented)   A system as in claim 10, further including motorized drivers for moving the receptor.

12.   (previously presented)   A system as in claim 10, further including   encoders   coupled   with   the   column   to   provide   digital

information regarding movement thereof, and a computer coupled with the

encoders to receive digital information therefrom and programmed to

utilize the information to control said movement.

13.   (currently amended)   A system positioning a digital flat

panel x-ray receptor for a variety of diagnostic x-ray protocols,

comprising:

an x-ray source selectively emitting an x-ray beam and

positioning said beam at positions and orientations for a variety of x-

ray imaging protocols, and a supporting structure for said x-ray

source;

a digital flat panel x-ray receptor having an imaging face;

a track supporting, for movement along the track, a downwardly

extending, telescoping column that in turn supports said receptor for

movement ~~up and down, about an up-down axis, and about a lateral axis~~

~~transverse to said up-down axis, to thereby position and orient said~~

~~imaging face of the receptor~~ to match the position and orientation of

said x-ray beam for said variety of x-ray imaging protocols,

wherein the receptor moves in at least two translational and

three rotational motions<u>, including up and down, about an up-down axis,</u>

<u>and about a lateral axis transverse to said up-down axis</u>.

14.   (previously presented)   A system as in claim 13, further

including motorized drivers for moving the receptor.

15.   (previously presented)   A system as in claim 13, further

including encoders coupled with the column to provide digital

information regarding movement thereof, and a computer coupled with the

encoders to receive digital information therefrom and programmed to utilize the information to control said movement.

16.   (new)   A system as in claim 1, wherein said variety of diagnostic x-ray protocols include protocols in which the source is above the receptor and protocols for lateral imaging in which the source and receptor are at matching levels.

17.   (new)   A system as in claim 1, wherein the movement of said receptor in at least two translational and three rotational motions includes rotation between portrait and landscape orientations, tilt between vertical and horizontal orientations of the imaging face of said receptor, rotation together with said column about a long column axis, and translation up and down said column.

18.   (new)   A system as in claim 2, wherein said variety of x-ray imaging protocols are for standing, sitting and recumbent patients, including protocols in which the source is above the receptor and protocols for lateral imaging in which the source and receptor are at matching levels.

19.   (new)   A system as in claim 2, wherein the movement of said receptor in at least two translational and three rotational motions includes rotation between portrait and landscape orientations, tilt between vertical and horizontal orientations of the imaging face of said receptor, rotation together with said second column about a long column axis, and translation up and down said second column.

20. (new) A system as in claim 3, wherein said variety of x-ray imaging protocols are for standing, sitting and recumbent patients, including protocols in which the source is above the receptor and protocols for lateral imaging in which the source and receptor are at matching levels.

21. (new) A system as in claim 3, wherein the movement of said receptor in at least two translational and three rotational motions includes rotation between portrait and landscape orientations, tilt between vertical and horizontal orientations of the imaging face of said receptor, rotation together with said column about a long column axis, and translation up and down said column.

22. (new) A system as in claim 7, wherein the movement of said receptor in at least two translational and three rotational motions includes rotation between portrait and landscape orientations, tilt between vertical and horizontal orientations of the imaging face of said receptor, rotation together with said column about a long column axis, and translation up and down said column.

23. (new) A system as in claim 10, wherein the movement of said receptor in at least two translational and three rotational motions includes rotation between portrait and landscape orientations, tilt between vertical and horizontal orientations of the imaging face of said receptor, rotation together with said second column about a long column axis, and translation up and down said second column.

24. (new) A system as in claim 13, wherein the movement of said

receptor in at least two translational and three rotational motions

includes rotation between portrait and landscape orientations, tilt

between vertical and horizontal orientations of the imaging face of

said receptor, rotation together with said column about a long column

axis, and translation up and down said column.